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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WEBB, SARAH K

ART UNIT

PAPER NUMBER

3731

DATE MAILED: 09/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/919,583

Applicant(s)

TRUWIT ET AL.

Examiner

Sarah K Webb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 3 and 10 are objected to because of the following informalities: "...means for cutting is a wire or ceramic or silicon or metal" does not follow the applicant's specification.

Examiner suggests "means for cutting is a wire made from ceramic, silicon, or metal."

Appropriate correction is required.

2. Claim 21 is objected to because of the following informalities: "claim 17 further wherein the means for cutting further" is not proper grammar. Examiner suggests removing the first "further" so that the claim reads, "...claim 17 wherein the means....". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "applying ultrasonic energy to the wire". Examiner suggests replacing "the wire" of claims 4 and 20 with "the cutting means".

4. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 should be dependent upon claim 11, instead of claim 3. Examiner regarded claim 12 to be dependent upon claim 11 for this office action.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5,9-13, and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,527,331 to Kresch et al

The tissue resection device of Kresch includes all the limitations of the claimed invention. Referring to Figure 2A, an outer shaft (P) is provided with a distal aperture (18) and an electrocautery cutting head (C) positioned within the member (P). Figure 6B shows an alternate rotating cutting head (C) that is a wire, and Figure 9 shows another type wire (202) cutting member. In lines 45-48 of column 7, Kresch explains that cautery results immediately after or simultaneously as the cutting heads passes over flesh. Figure 1A shows a conduit (41) through which the cautery power is supplied to the device. An ultrasonic transducer (T) is connected to the cutting head (C), which could be configured to facilitate cutting or coagulate blood.

Referring to claims 9-13, Kresch describes the method in which the tissue resection device is used during operation beginning in line 66 of column 3. The method includes positioning the device within the body, translating the electrosurgical wire relative to the outer shaft to cut tissue, cauterizing tissue, and using ultrasonic energy to aid in the procedure.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-8, 14-16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kresch in view of U.S. Patent No. 5,674,235 to Parisi.

Kresch includes all the limitations of claims 6,8,14, and 16 except for the cutting surface formed in the side of the inner tubular member so that rotation of the inner tube causes the cutting surface to move in a direction that is both in part parallel and transverse to the longitudinal axis. Parisi teaches an opening cut at an angle into the side of a tube of a surgical cutting instrument that is used for tissue removal, as shown in Figure 3. Rotation of this type of tube would result in the cutting surface moving both in part parallel and transverse to the longitudinal axis of the shaft. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the cutting member of Kresch as a diagonal opening formed in the wall of the inner tube, as taught by Parisi, as this is an alternate way to form a tissue removal device.

Regarding claims 7,15, and 22, Kresch includes a source of ultrasonic energy in the tissue resection device that is adjacent to the cutting member, but fails to configure the ultrasonic transducer to engage the cutting member. Parisi teaches that the application of ultrasonic energy to a cutting edge results in an extremely precise incision (column 2, line 21). Parisi goes on to teach that the high frequency of the cutting action

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produces a friction, or heat, that cauterizes the wound during cutting (column 4, line 7 and line 29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the ultrasonic energy source of Kresch to engage the cutting edge, as taught by Parisi, in order obtain a more precise incision and cauterize the incision simultaneously.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent No. 5,792,166 to Gordon et al. – outer tube with aperture, inner tube with rotating cutter; method for using the tissue cutting device
- U.S. Patent No. 5,571,130 to Simpson et al. – outer tube with aperture, inner tube with rotating cutter; ultrasonic device, heated blades
- U.S. Patent No. 6,273,862 to Privitera et al. – biopsy device including two shafts, sliding cutter, apertures on side wall of tube
- U.S. Patent No. 6,120,519 to Weber et al. – tissue removal device including outer shaft with plurality of apertures, inner rotating shaft with cutting means, ultrasonic device with temperature sensor
- U.S. Patent No. 5,254,082 to Takase – surgical cutting device that uses ultrasonic vibrations

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah K Webb whose telephone number is (703) 305-7554. The examiner can normally be reached on 8am-4:30pm Mon-Fri.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on 703-308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

Sarah K Webb  
Examiner  
Art Unit 3731

SW  
September 5, 2002



Michael Milano  
Supervisory Patent Examiner  
Art Unit 3700